Experience of the 48th Evacuation Hospital in the treatment and management of Chinese Patients.

A considerable number of personnel of this organization have cared for Chinese soldiers almost exclusively for the past 14 months. During the past 4 months the entire personnel of the organization has taken care of Chinese patients only. During the past 14 months, therefore, the personnel have examined and treated approximately 17,000 to 18,000 Chinese individuals. This has provided a rich and tremendously interesting professional experience, especially for the internists and the laboratory men. These patients have presented a wide variety of interesting diseases and pathological conditions. The following observations and impressions are presented as of interest and pertaining especially to medical work in this part of the Southeast Asiatic theater.

The average Chinese soldier that we have seen is small compared to Americans. Some are very youthful; the majority are in their 20's. He is not more than 5½ feet tall and weighs on an average 125 to 130 lbs. As a rule he is slender with small bones, but well built and capable of great endurance, and hard work when he is not sick with the many diseases that may afflict him when he first comes from China. We have observed great variations in weight because among soldiers newly arrived from China, malnutrition is common, producing in some cases extreme degrees of emaciation. This is corrected by the better diet afforded the Chinese training and operating in India and Burma. Some of them appear plump and well nourished, but we have never encountered a case of true obesity, and not a single case of endocrine conditions such as Frohlich's Syndrome.

One of the most striking differences between our experiences with Chinese and experiences in medical practice in the United States is the fact that the Chinese soldiers suffer commonly not from a single disease condition, but from a multiplicity of diseases. The symptoms and physical findings which they present, therefore, are very frequently to be explained not on the basis of one disorder such as we have been accustomed to in the past, but by more than one disease. For example in a soldier who entered the hospital recently with a diagnosis of relapsing fever, examination of blood smears showed not only the spirochetes of relapsing fever, but numerous Falcip. Plasmodia. Cerebral symptoms and neurological findings suggested the possibility of cerebral malaria, but a spinal tap showed purulent spinal fluid probably due to meningococcus meningitis. At autopsy, both kidneys showed what appeared to be multiple small abscesses throughout the substance of each kidney, the exact nature of which is not yet known. Very numerous similar

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examples of 2, 3, 4, or even 5 diseases existing in the same individual could be given.

As mentioned above, many patients suffer from varying degrees of malnutrition and deficiency states due to lack of specific vitamins. Beriberi is the most common specific deficiency disease which we have encountered. In the summer and early fall of 1943 at a Chinese training center, a large number of cases of this disease were encountered. Our experience with this outbreak was reported in CBI Field Medical Bulletin for December 1943. During the past 4 months at this post we have seen occasional cases of beriberi, but the incidence has not been high. Doctors who have practiced in China for a number of years have told us that there is a seasonal increase in beriberi beginning in the summer, and we are watching with considerable interest to see whether or not we shall have a repitition of our experience beginning in August of this year comparable to the experience of 1943. Evidence of deficiencies of the other components of the Vitamin B complex have been encountered, especially those due to lack of Riboflavin. We have also seen an occasional patient with glossitis in various stages, presumably due to lack of nicotinic acid, but never any instances of skin changes typical of pellagra. Frequent complaints of night blindness have been made by the Chinese soldier. It seems probable that this represents a deficiency of Vitamin A since even in the hospital the diet provided is definitely lacking in this essential substance. Many of the cases examined, however, have shown other eye diseases which of themselves were an adequate cause of defective vision. No cases of xerophthalmia or keratomalacia have been seen. No cases of scurvy have been encountered. It has not been possible to determine the plasma proteins, but we believe that a deficiency of this constituent of the blood may be accountable for an occasional case of edema. Nutritional anemia is also common usually occurring in association with hookworm and ascaris infestation which is very common in the Chinese soldiers.

Skin disorders due to pyogenic and fungus infections have been common.

The teeth of the Chinese soldiers are very good. In the majority they are white, strong, and regular. Caries does occur, but it is not common. Not a single edentulous soldier has been seen. Pyorrhea is very rare; a few cases have been seen in older soldiers. The dental surgeons have surveyed thousands of Chinese soldiers and agree with the above statements. The most common condition bringing them to the dentist is impacted or retained 3rd molars. Gross accumulation of tartar is likewise common. In general the undersigned believes that the teeth of these Chinese young men and youths are infinitely better than those of the general run of men examined for selective service by him in 1940, 41 and 42. The undersigned has never encountered in

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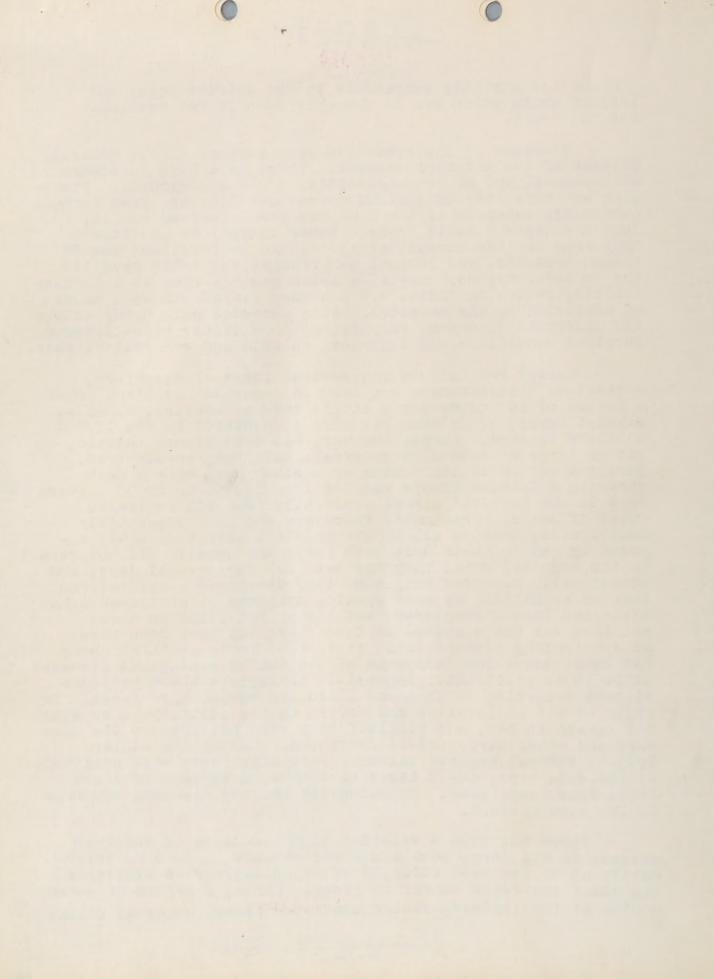
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the Chinese anything comparable to the extreme decay and loss of teeth which was so commonly seen in men examined for the draft.

Diseases of the eyes have been common, almost entirely disease of the anterior segment. There is a high incidence of trachoma, and of conjunctivitis, acute and chronic. Pterygium and keratitis of various types have likewise been common. Dermatitis venenata of the lids has been observed due to jungle vines and toxic trees. Other conditions peculiar to this area include corneal abrasions and perforations due to bamboo branches, and retinal hemorrhages, and optic neuritis due to scrub typhus. During a seven month period at a Chinese training center in India, eye diseases ranked 6th as a cause of admission to the hospital, being exceeded only by dysentery and diarrheal diseases, respiratory infections, miscellaneous surgical conditions and injuries, malaria and venereal disease.

Except for malaria and various forms of dysentery, contagious diseases have not been an important problem. Over a period of 14 months not a single case of Measles, Rubella, Scarlet fever, or Chicken Pox were encountered in the 17,000 soldiers treated. Mumps, however, has been almost endemic, but no large or extensive outbreaks have been encountered. During a period of ten months at another post with a mean strength of Chinese troops ranging from 12,000 to 22,000, there were in the hospital almost constantly from six to twelve cases of Numps. Presumably there are not many susceptible individuals, because all of the soldiers were thoroughly exposed by men in their unit with Mumps who usually did not report to the hospital until they had been ill for several days, and occasionally reported only when they developed complications such as orchitis. No case showing symptoms of menigo-encephalitis has been encountered, but the spinal fluid in these soldiers was not examined so that there may have been cases of symptomless pleocytosis. It is most fortunate that there has been such a low incidence of the common contagious diseases since it is practically impossible to isolate these patients without resorting to an armed guard and barbed wire fence. In spite of all explanation and orders to the contrary, they will not remain in bed, and mingle freely with patients on the same ward and other wards unless prevented. During the winter 1943-44 several hundred cases of relapsing fever were admitted; at the same time, 60-70 cases of typhus, a variant of louse borne type, were seen. Occasionally the two diseases occurred in the same patient.

There has been a relative high incidence of venereal disease in all forms both acute and chronic. Since no information as to the mean strength of organizations is available the exact incidence cannot be given. During a period of seven months at the training center mentioned above, venereal disease



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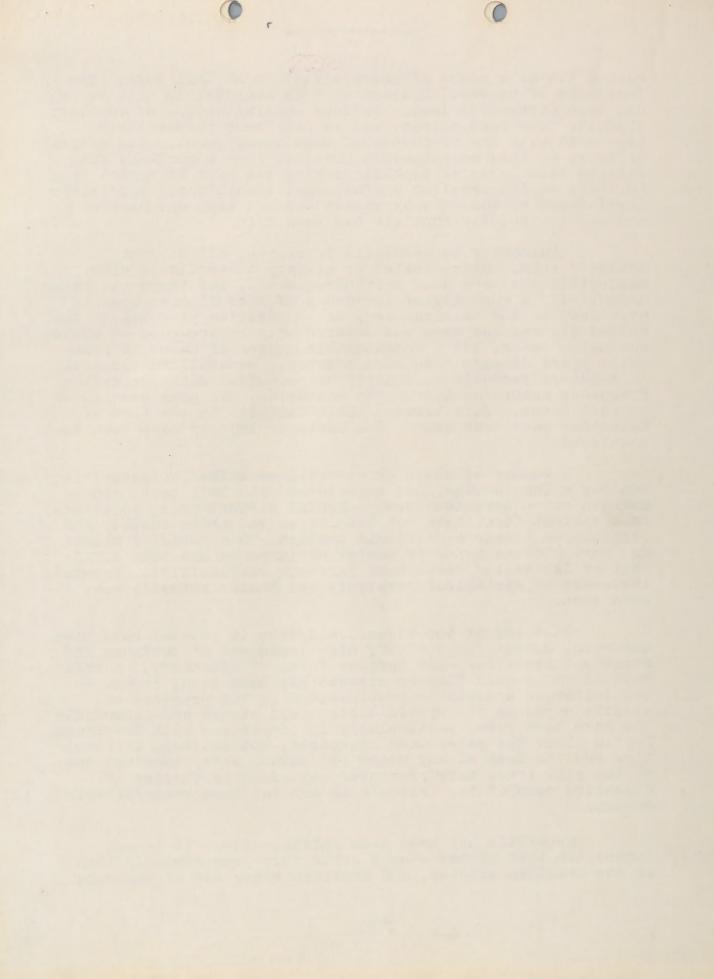
ranked 5th as a cause of hospitalization at that post. The incidence of venereal disease at this hospital in Base Sec #3 has been distinctly less. Various manifestations of tertiary syphilis have been common, and we have been particularly impressed with the frequency of bone involvement. The medical officers of this organization have had more experience with various late forms of syphilis during the past 14 months than in their entire previous professional experience. Syphilitic involvement of the nervous system has not been encountered and cardio-vascular syphilis has been rare.

Pulmonary tuberculosis is common, often in an advanced form. Disseminated or miliary tuberculosis with meningitis has been seen not infrequently, and there has been undoubtedly a much higher incidence of this disease than is ever seen in the American army or in civilian practice in the United States. We have encountered only a rare case of acute rheumatic fever, but a considerable number of cases of rheumatic heart disease have been treated. Generalized vaccinia in soldiers recently vaccinated has occurred with surprising frequency according to our own standards. We have seen 10 or 12 such cases. Rare cases of Leishmaniasis in the form of Kala azar have been seen. Two cases of leprosy have been encountered.

A number of cases of severe, generalized polyneuritis running a long course, not associated with beri beri, and of unknown cause have been seen. Mental disturbances, sometimes in a violent form, have not been rare, and their custody and disposition create a difficult problem. Diagnosis of milder or more obscure types of mental disturbance has been difficult or impossible because of language difficulties. Several instances of hysterical paralysis and hemianaesthesia have been seen.

Diseases of the digestive system in general have been uncommon, except for the very high incidence of hookworm and ascaris infestation, and various forms of dysentery. A rare case of acute gall bladder disease has been seen, in one or two instances apparently precipitated by the presence of ascaris worms in the cystic duct. Gall stones and appendicitis have been rare, particularly in comparison with Americans. Peptic ulcer has never been diagnosed, but language difficulties and the lack of any means for making x-ray examinations of the g.i. tract have prevented any adequate studies of digestive complaints. Fistula in ano has been comparatively common.

Nephritis has been seen infrequently. It is our impression that kidney stones occur much less commonly than in the American soldier, and American young men of the same



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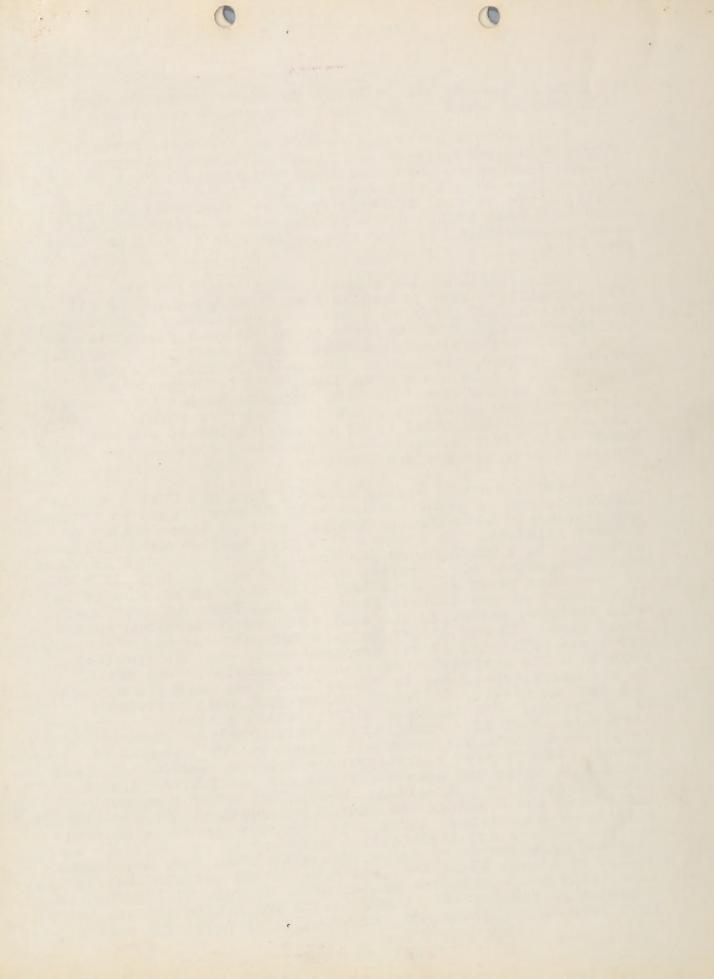
age group. Bladder stones though rare have occurred more often than is found in Americans in the same age group.

Rheumotoid arthritis is rare as are other forms of arthritis and bone diseases. Tumors have been uncommon. The only form encountered has been malignant lymphoma of which we have seen 5 or 6 cases in the 17,000 soldiers examined. No case of leukemia or other primary blood disorder have been seen. Not a single case of diabetes mellitus or hyperthyroidism has been seen. Nontoxic goiters have not been rare.

In summation, the common complaints which the Chinese soldiers have presented have been dysentery of all forms, intestinal parasites, malaria, respiratory infections, and tuberculosis, various forms of nutritional disorders and anemia associated with malnutrition and intestinal parasites, venereal disease, and during the cooler months, relapsing fever which has been a common disease in our experience. Other than battle casmalties the surgeons have been concerned mostly with the treatment of serious injuries resulting from auto accidents and other minor surgical ailments such as hemorrhoids, fistula in ano, circumcision, treatment of boils and abscesses, sprains and strains.

Our personnel coming directly from the United States and having had no prior contact with Chinese, faced an interesting problem in assuming the medical care of large number of Chinese soldiers. In general they have handled this difficult situation in a commendable fashion. The Chinese soldiers have received medical and surgical care of a very high quality such as they have never received before in their experience or in the history of the Chinese Army. It has been the best that well trained, superior, and well equipped doctors and nurses could give. In our effort to care successfully and efficiently for these patients, it was realized early that it involved more than the possession of technical knowledge and skill. It was necessary to try to understand these patients who have had such an utterly different background, both individually as a nation. The language difficulties, although interpreters were provided, presented no small problem. Instruction in spoken Chinese was given all personnel for a period of three months. Many showed a gratifying ability to learn, and their ability to speak and understand Chinese has increased with constant practice. Americans perhaps can never completely understand the feelings and mental processes of Chinese without a lifetime experience, and a more thorough knowledge of their ancient culture and civilization than any of us possess. We have had a concentrated experience with them, however, over a period of almost 15 months, and have gained certain impressions, especially as regards the manner of of approach which must be followed in dealing with them. As in any nation or race there have been many physical and psychological types. The common

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soldiers, however, have for the most part had a similar background . The great majority of them are illiterate and have come from isolated farms and small villages wher life has often been hard and for many a persistent struggle for e istance. This poverty and i morance of necessity has caused them to develor habits and reactions which one cannot extect ther to abandon as soon as the enter an American hos ital. Che of the most triing difficulties with which we have had to struggle has been their great ignorance of and complete indifference to that we consider important samitary practices. It has been a constant struggle, therefore, to maintain the wards and their surroundings in anything like a clean and sanitary condition. It is their custom to throw uneaten food and other garbage out of the window or even under the bed, and they are not disturbed in the slightest by the tremendous swarms of flies that accumulate. They said anywhere that is convenient even though cans or other receptacles are provided for them. Because of the frequency of julronary tuberculesis this has constituted a serious remace to the health of American personnel caring for them. Although an abundance of food is provided, the diet, at times at least, has a monotonous sameness which they seek to correct by preparing and cooking rood for them-selves. Ward officers are no longer surprised to find chickens tied under the bed, with all of the unsanitary conditions which result from feeding this chicken in the hospital ward. In order to obtain firewood for their cooking, which goes on allower the hospital grounds, they will break off pieces of the bamboo basha flooring, and by now have almost completely used up the bamboo rails which were put around the slit trenches as a protection to people walking about in the dark. We have not had the common problem which is encountered in the Indians of defecating in the grass and visies, for the do as latrines on which they squat no natter whether seats are provided or not. They show a remarkable nonchlance, however, about urinating just outside the door of the wards. It has been a constant and difficult struggle to induce ther to use malaria preventive measures. During the hot weather it is almost impossible to brevent large numbers from rolling up the mosquito bars which are provided for them, and they attend the movies in various stages of undress at hight in spite of all reasonable measures to persuade or compel them to do otherwise.

Another difficulty which has been encountered has seen the tendency to interfere with treatment. They not uncommonly but a magnetic of plaster casts and rarely remove them entirely. The orthopedic surgeons have found it best in cases of compound fractures of the femur to use traction with steirman win through the heel, since this is the only apparatus which they will not remove. This does not prevent them, however, from inducing their friends to remove the



bricks and other weights which are used to provide traction. They not infrequently remove their dressings sometimes out of pure curiosity to examine their wound. Others go to the other extreme and demand daily dressing of wounds which do not require dressing more than once weekly. As mentioned above it is impossible to isolate patients with contagious diseases. It is likewise not uncommon for patients to refuse to take medicine if it does not taste good, and our Medical Officers, nurses, and ward personnel have long since learned to look under pillows and in the pockets of pajamas to see whether atabrine tablets provided for patients have been taken.

It is impossible to keep these patients in bed unless their injuries prevent them completely from getting out of bed or unless they feel too weak or too ill to get up. Doctors have been startled and surprised to find their pneumonia patients with high fever up and walking around. The same is true of post-operative cases. One striking example was provided by a patient who entered the hospital with malaria, and was found on physical examination to have a large spleen. During the period of treatment he left the ward, presumably to go to the bazaar, and fell into a ditch striking his left side. He suffered a rupture of the spleen so that it was necessary to remove the spleen. 11 hours later he was found visiting another ward where he had gone to retrieve some personnel belongings. He made an uneventful recovery. We have had to reconsider our ideas as to the importance and necessity of confining patients to bed with severe illness and post operatively, because for the most part these patients have seemed to do just as well as our patients at home who remain in bed for a week or two weeks under similar circumstances.

One of the most serious or annoying tendencies of the patients is the pilfering or appropriation of the belongings of others for their own use. We have been rather appalled at the frequent lack of sympathy or compassion for the afflictions or disabilities of their fellows, which often excite their mirth or amusement. They are very quick, however, to resent vigorously any real or fancied injury to their fellows by Americans. They have always been and are still content with little, but again they object strenuously if they suspect that anything which should be forthcoming is withheld from them. The same mental reaction causes them often to be very demanding. Contrary to our preconcieved ideas, these patients are not stolid, but are excitable, and as quick to anger as to laughter.

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This enumeration should not stop with mention of difficulties and undesirable traits, because these patients have many admirable qualities. One that has impressed us greatly is their universal natural cheerfulness and good nature. They like to laugh and it is easy to cause them to laugh or smile even though they do not understand what is said to them. They are mischievous and full of pranks, and this along with their cheerfulness makes them resemble children. Occasionally their mischief is annoying, especially when they plague the meek and submissive Indians who work about the hospital. They are eager to learn, and many of them are quick to grasp new ideas and knowledge. They are distinctly aggressive and in striking contrast to Indian coolies and laborers. They are not easily downed by sickness, injuries, or misfortune. One must acknowledge that the majority of them show patience and courageous resignation to suffering, and such things as the loss of an eye or a limb. In their own way they frequently express their appreciation of what has been done for them. Others no doubt have some psychological handicap such as is often found in other races which prevents them from openly expressing a sincere appreciation which they me vertheless feel within them. In general, in spite of the difficulties enumerated above, they are good patients and easy to handle with the proper approach. The proper approach is of the greatest importance, for without it there may be serious trouble. One cannot compel or coerce these patients to do anything. They must be persuaded and it has been very striking to witness the marked improvement in the general sanitary conditions and cleanliness of the wards which can be accomplished with good natured persuasion and 4 jollying. Our nurses in particular have been successful in getting the cooperation and good will of the patients. It should be added at this point also, that during the 14 months we have been caring for these soldiers there has never been a single instance of any improper attitude toward or treatment of our nurses, whom the Chinese soldiers in general have always treated with respect if not with courtesy. Fortunately there has never been any serious difficulty or clashes with these patients. One cannot avoid speculating on the effect of all this upon future relations between our country and China, relations which will be of vital importance in the post war period and eventual maintenance of peace. Perhaps this practical form of friendly relations and demonstration of goodwill will, like actions, speak louder than the words of diplomacy.

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